Wyoming Department of Education Required Virtual Education Course Syllabus

Natrona County School District # 1

Program Name	Natrona Virtual Learning	Content Area	MA
Course ID	NCV02072.2	Grade Level	9,10,11,12
Course Name	Geometry Sem 2	# of Credits	0.5
SCED Code	02072G0.5022	Curriculum Type	Odysseyware

COURSE DESCRIPTION

Sem. 2 Geometry is the continued math course for the student who has successfully completed the prerequisite course, Algebra I. The course focuses on the skills and methods of linear, quadratic, coordinate, and plane geometry. In it, students will gain solid experience with geometric calculations and coordinate plane graphing, methods of formal proof, and techniques of construction.

WYOMING CONTENT AND PERFORMANCE STANDARDS

STANDARD#	BENCHMARK (Standard/Indicator) Use the Standards and Benchmarks as Spreadsheets
G.C.5	Derive using similarity the fact that the length of the arc intercepted by an angle is proportional to the radius, and define the radian measure of the angle as the constant of proportionality; derive the formula for the area of a sector.
G.GPE.7	Use coordinates to compute perimeters of polygons and areas of triangles and rectangles, e.g., using the distance formula.*
A.REI.12	Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.
G.CO.6	Use geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion on a given figure; given two figures, use the definition of congruence in terms of rigid motions to decide if they are congruent.
G.SRT.11	(+)Understand and apply the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles (e.g., surveying problems, resultant forces).
S.CP.9	(+)Use permutations and combinations to compute probabilities of compound events and solve problems.*

SCOPE AND SEQUENCE

UNIT OUTLINE	STANDARD#	OUTCOMES OBJECTIVES/STUDENT CENTERED GOALS
UNIT 1: Circles	G.C.5	Identify and define the parts of a circle. Know and identify tangent lines Identify and define inscribed angles and intercepted arcs. Find the lengths of chords, secants, and tangents
UNIT 2: Area and Volume	G.GPE.7	Find the area of polygon by breaking in into triangles. Find the area of trapezoid. Construct a rectangle, parallelogram, hexagon, and octagon. Finding the cross sections when a plane intersects a three-dimensional figure parallel to its base and/or perpendicular to its base.
UNIT 3: Coordinate Geometry	A.REI.12	Find planes of symmetry. Graph combinations of linear equations and inequalities. Use perimeter formulas. Determine the slopes of parallel and perpendicular lines.

UNIT 4: Transformations	G.CO.6	Define isometry and the three types of rigid motion. Create transformations and examine angles and line segments.
UNIT 5: Geometric Application	G.SRT.11	Use "SOH CAH TOA" as a memory aid when solving for unknown measurements in a triangle. Find a side measure of a triangle using the law of cosines. Interpret answers in terms of context problems.
UNIT 6: Probability	S.CP.9	Find the probability of an event happening, or not happening. Find the probability of independent events.Find the number of permutations of n items taken r at a time, when some of the items are indistinguishable. Use two-way frequency tables to solve problems.